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## Exploring policies for the reduction of child physical abuse and neglect★

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### Abstract

Policies can be powerful tools for prevention given their potential to affect conditions that can improve population-level health. Given the dearth of empirical research on policies' impacts on child maltreatment, this article (a) identifies 37 state policies that might have impacts on the social determinants of child maltreatment; (b) identifies available data sources documenting the implementation of 31 policies; and (c) utilizes the available data to explore effects of 11 policies (selected because they had little missing data) on child maltreatment rates. These include two policies aimed at reducing poverty, two temporary assistance to needy families policies, two policies aimed at increasing access to child care, three policies aimed at increasing access to high quality pre-K, and three policies aimed at increasing access to health care. Multi-level regression analyses between within-state trends of child maltreatment investigation rates and these 11 policies, controlling for states' childhood poverty, adults without a high school diploma, unemployment, child burden, and race/ethnicity, identified two that were significantly associated with decreased child maltreatment rates: lack of waitlists to access subsidized child care and policies that facilitate continuity of child health care. These findings are correlational and are limited by the quality and availability of the data. Future research might focus on a reduced number of states that have good quality administrative data or population-based survey data on child maltreatment or reasonable proxies for child maltreatment and where data on the actual implementation of specific policies of interest can be documented.

### Keywords

Child physical abuse; Child neglect; Policy evaluation

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## Introduction

Research on and use of public policies to prevent child maltreatment is surprisingly scant. A recent review conducted to identify gaps in child maltreatment prevention found only three studies examining public policies (Klevens & Whitaker, 2007). Two of these studies examined the impact of welfare policies on child physical abuse and neglect (Fein & Lee, 2003; Paxson & Waldfogel, 2002, 2003), and one study looked at the impact of legislation banning corporal punishment (Durrant, 1999). Other policies with prevention potential examined in the literature not identified by Klevens and Whitaker (2007) include legislation criminalizing fetal exposure to drugs (Chavkin, Wise, & Elman, 1998), child exposure to partner violence being considered child neglect (Edleson, Gassman-Pines, & Hill, 2006), increasing access to abortion (Bitler & Zavodny, 2004; Seiglie, 2004; Sen, Wingate, & Kirby, 2012), and housing policies' effects on stability for children and availability of child care (McAllister, Thomas, Wilson & Green, 2009).

This limited research on policies is problematic because policies can be powerful tools for prevention given their potential to affect the conditions in which people are born, grow, live, and work (i.e., social determinants) and improve population-level health (Commission on Social Determinants of Health [CSDH], 2008). Even policies that are not formulated with health in mind often have health consequences. For example, the Earned Income Tax Credit has been associated with decreases in infant mortality (Arno, Sohler, Viola, & Schechter, 2009). Providing income support to families in poverty has been associated with decreases in children's externalizing behaviors (Gennetian, Castells, & Morris, 2010), young adult substance abuse (Costello, Erkanli, Copeland, & Angold, 2010), and delinquency (Akee, Copeland, Keeler, Angold, & Costello, 2010).

Given the potential for prevention and dearth of empirical research on policies' impacts on child maltreatment, we aimed to (a) identify state policies that might have impacts on the social determinants of child maltreatment; (b) identify available data sources documenting the implementation of these policies; and (c) utilize the available data to explore effects of a selected set of policies on child maltreatment investigation rates. The first section of this article describes our approach and findings for the first two aims. The second section presents the methods and findings for the third aim. The final section will summarize the findings, identify the limitations of our data, and suggest directions for future efforts. This work may encourage other child maltreatment prevention researchers to go beyond individual and family-level interventions and consider more research on policies' impacts.

## Identification of Policies, Theoretical Links, and Data Sources

The term *policy*, as used in this study, includes any law, regulation, procedure, administrative action, incentive, or voluntary practice of governments and other institutions (Centers for Disease Control and Prevention, 2013). This study focuses on state-level policies for two reasons. First, states and local governments contribute to two thirds of all public spending on children (Isaacs, Hahn, Rennane, Steuerle, & Vericker, 2011), and therefore, state-level public policies have substantial impacts on children. Second, the variation across states and small but measurable change over time in the selection and

implementation of policies offered multiple “natural experiments” which could facilitate the evaluation of the impact of policies.

To identify state policies that might affect the social determinants of child maltreatment rates we consulted with nine individuals identified by the Center for the Study of Social Policy (CSSP) as policy experts in the area of child and family welfare, economics, public health, health care, or environment and discussed with them how these policies might be theoretically linked to child maltreatment. For the consultants, we defined social determinants as the circumstances in which people are born, grow, live, work, and age (CSDH, 2008). These consultants also provided suggestions for available data on state-level policies. Internet searches and interviews with key informants identified by CSSP were used to identify other available data on state-level policies. Table 1 presents the list of state policies identified and, if found, the year(s) and source for which data were available on their implementation.

The first group of policies identified addressed the issues of low income and poverty. Low income has long been associated with maltreatment (Stith et al., 2009). The mechanisms through which poverty or low income might increase child maltreatment include increased parental stress as a result of perceived hardships (Gershoff, Aber, Raver, & Lennon, 2007; Mistry, Vandewater, Huston, & McLoyd, 2002; Slack, Holl, McDaniel, Yoo, & Bolger, 2004; Yeung, Linver, & Brooks-Gunn, 2002), increased number of negative life events (Gershoff et al., 2007), or because of poverty's effects on parents' mental health and relationships with partners (Yeung et al., 2002).

Policies related to concentration of poverty were also proposed. Concentrated neighborhood poverty is consistently associated with higher rates of child maltreatment (Coulton, Crampton, Irwin, Spilsbury, & Korbin, 2007; Freisthler, Merritt, & LaScala, 2006). Neighborhood disadvantage might increase child maltreatment through its effects on parental depression (Mair, Diez Roux, & Galea, 2008), social capital (Zolotor & Runyan, 2006), willingness to rely on neighbors for child care (Garbarino & Sherman, 1980) or other needs (Ernst, 2001), increased social disorder resulting in lack of social controls on behaviors (Freisthler et al., 2006), or decreased access to resources and formal supports.

Housing policies were suggested because they affect access to affordable housing and residential stability. Homelessness is a stronger predictor than parental substance abuse or mental illness for out-of-home placements for children (Cowal, Shinn, Weitzman, Stojanovic, & Labay, 2002). Whether a direct result of low income or its correlates, homelessness or residential instability is in itself a stressor and it affects a parent's ability to develop and maintain a local support network. In turn, weak or lack of social support is a consistent risk factor for child maltreatment (Stith et al., 2009).

Policies related to access to high quality affordable childcare were proposed for two reasons. First, childcare assistance can affect families' ability to work and earn sufficient income (Schulman & Blank, 2004); as described previously, insufficient income may lead to child maltreatment through various mechanisms. Second, enriched early experiences in high-

quality care settings can reduce childhood and adolescent behavioral problems (Vandell et al., 2010) which may trigger abusive parenting.

Evidence suggesting that pre-K programs involving parents may reduce child maltreatment (Reynolds & Robertson, 2003) led to consideration of policies increasing access to high quality pre-K. States vary considerably in the strategies pursued to increase the quality of child care (e.g., allowing tiered reimbursement; and providing funding for quality improvement grants, professional development systems building, care provider scholarships, and/or wage enhancement initiatives) and pre-K programs (e.g., promoting comprehensive early learning standards or parental involvement, establishing degree and training requirements for teachers, setting maximum class size allowed and minimum staff-child ratio, requiring that health and support services and meals be provided, and conducting site visits).

Policies related to state provision of children's health care insurance (SCHIP) were proposed because without insurance children are less likely to receive health services in a timely manner (Institute of Medicine, 2002) which might lead to medical neglect. In addition to considering increased thresholds for eligibility for lower income families, policy experts proposed continuous eligibility and presumptive eligibility policies. Continuous eligibility policies were considered because these enable states to ensure continuity of care by providing Medicaid and SCHIP enrollees' continuous coverage for longer periods of time rather than on a month-to-month basis. Presumptive eligibility policies enable states to provide temporary coverage to children and pregnant women under Medicaid and SCHIP until a formal eligibility determination can be made.

Policies related to parents' health insurance and access to mental health care, substance abuse treatment, and contraception were also suggested. Such policies were included because anxiety, depression, psychopathology, substance abuse, and unplanned pregnancies are risk factors for child maltreatment (Stith et al., 2009).

### **Exploration of Potential Effects of Policies on Child Maltreatment Investigation Rates**

We examined the potential statistical effects of the 11 policies that had the most complete set of state-level yearly data for 2000 to 2009. The 11 policies selected for these analyses are numbered in the first column of Table 1 along with a description and the sources of data used to document these policies.

## **Methods**

### **Variables**

The dependent variable for these policy analyses, state-level child maltreatment investigation rate, was based on the U.S. Department of Health and Human Services' (DHHS) Administration for Children and Families (2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010a, 2010b) annual reports on child abuse and neglect. These reports contain data on the number of referrals (or allegation of maltreatment) to Child Protective Services (CPS), the number of cases *screened in* (i.e., investigated), and the number of cases determined to be maltreated or *substantiated* by CPS for the 50 states and the District of

Columbia. We chose to utilize cases screened in (per 1,000 children in each state) as the outcome for various reasons. A screened in referral means that an allegation of child abuse or neglect met the State's standard for investigation. The rate of investigations in the United States has remained constant for at least the past five years (DHHS, 2010), which suggests some level of consistency in this determination despite changes in response (e.g., the development of differential response models). Screened in cases include both substantiated and unsubstantiated cases. Although including unsubstantiated cases in our rates might seem counterintuitive, there is growing recognition in the field that this inclusion provides a better indicator of child maltreatment given that multiple studies find little or no difference between substantiated and unsubstantiated cases in regards to risk factors or future risk (Drake, Jonson-Reid, Way, & Chung, 2003; English, Marshall, Brummel, & Orme, 1999; Hussey et al., 2005; Jonson-Reid, Drake, Kim, Porterfield, & Han, 2004; Kohl, Jonson-Reid, & Drake, 2009). It also avoids the problem of substantiation rates changing as a result of new procedures or response decisions implemented by child protective services (e.g., alternative response tracks). We refer to this dependent variable as *child maltreatment investigations* throughout the manuscript.

The independent variables were the 11 policies identified as having the most complete data set. These variables included:

- (a) state minimum wage (U.S. Department of Labor, 2013),
- (b) the percentage of income owed in state income taxes (tax burden; calculated with version 9.0 of TAXSIM; Feenberg & Coutts, 1993; National Bureau of Economic Research, 2012) for families at the federal poverty line (U.S. Department of Health and Human Services, 2011a,b),
- (c) the maximum earnings applicants could receive and still be eligible for TANF benefits in each state (maximum monthly earnings and still eligible) (Rowe, McManus, & Roberts, 2004; Rowe & Murphy, 2006, 2009; Rowe, Murphy, & Kaminski, 2008; Rowe, Murphy, & Williamson, 2006a, 2006b; Rowe, Murphy, & Mon, 2010; Rowe & Roberts, 2004; Rowe & Russell, 2004; Rowe & Versteeg, 2005),
- (d) monthly benefits for a family of three, both adjusted for 2009 dollars (Rowe et al., 2004; Rowe & Murphy, 2006, 2009; Rowe et al., 2008; Rowe et al., 2006a,b; Rowe et al., 2010; Rowe & Roberts, 2004; Rowe & Russell, 2004; Rowe & Versteeg, 2005),
- (e) the income cutoff for child care subsidies for a family of three in each state (Blank, 2001; National Women's Law Center, 2004, 2006, 2007, 2008, 2009),
- (f) existence of a waitlist for child care in each state (Blank, 2001; National Women's Law Center, 2004, 2006, 2007, 2008, 2009),
- (g) percent above the federal poverty line at which children one to five years old were eligible for Medicaid/SCHIP (eligibility for Medicaid/SCHIP; Kaiser Commission on Medicaid and the Uninsured, 2000, 2002, 2003, 2004, 2005, 2007, 2008, 2009a,b),

- (h) continuity of eligibility for Medicaid/SCHIP (Kaiser Commission on Medicaid and the Uninsured, 2000, 2002, 2003, 2004, 2005, 2007, 2008, 2009a,b),
- (i) presumptive eligibility for Medicaid/SCHIP (Kaiser Commission on Medicaid and the Uninsured, 2000, 2002, 2003, 2004, 2005, 2007, 2008, 2009a,b),
- (j) percent of 3- and 4-year olds in pre-K (National Institute for Early Education Research, 2003, 2004, 2005, 2006, 2007, 2008, 2009), and
- (k) expenditures per child in pre-K in each state (available for 2001–2009; National Institute for Early Education Research, 2003, 2004, 2005, 2006, 2007, 2008, 2009).

Thus, the data consisted of 510 potential observations (where an observation is a state/year pair), representing 50 states and the District of Columbia during 10 years. There were 63 instances of missing state child maltreatment investigation rates (12%). Missing data for the policy analyses ranged from 157 observations (31%) for state pre-K expenditures to 42 observations (8%) for state minimum wage. All analyses treated missing data as missing. The following variables were considered potential confounders: state percentages of childhood poverty (U.S. Census Bureau, 2011c), population over 18 years of age with high school diploma (U.S. Census Bureau, 2011a), proportion of Black and Latino population (U.S. Census Bureau, 2011b), annual average unemployment rate (U.S. Department of Labor, 2012), and the state ratio of children 0–17 to adults 18–64 (U.S. Census Bureau, 2012).

## Analyses

To establish potential effects of policies on states' rates, multi-level regression model analyses was used to estimate the within state trends in child maltreatment investigation rates as a function of a specific policy controlling for all confounders mentioned previously. In addition, we also estimated models with up to three policies of similar nature to adjust for these simultaneously (e.g., TANF eligibility and TANF benefits were in the same model). For descriptive purposes, there was evidence of substantial clustering of measurement occasions (Level 1) within states (Level 2). For all variables, the proportion of state level variance was substantial (assessed by treating each predictor as a dependent variable in an intercept only model to establish intraclass correlation coefficients (ICCs)). All ICCs were over .50, except for the measure of child care quality ( $ICC = .14$ ), indicating over half of the variation in the assessments occurred across states. Multi-level models were selected to adjust for the clustering of time within states.

We focus on the results for the Level 1 predictors. All Level 1 predictor variables were centered around the state mean (Hoffman & Gavin, 1998). Values that deviated by more than 4.5 standard deviations from the expected value were excluded from the analyses to reduce error and avoid excess influence on effects. The time trend in child maltreatment investigation rates was included as a fixed effect. The policy variables were measured as differences from the state mean for the study period in order to control for unobservable state differences that are constant during the study period. A state-level random effect (random intercept) was also included to model unexplained variation across states in child



maltreatment investigation rates. Because trends over time were likely to vary by state we also model a random slope for time. Fit statistics based on the reduction in the –2 Restricted Log Likelihood (REML was used instead of ML estimation) and Schwarz's Bayesian Criterion (BIC) indicated improvement in fit by modeling a random slope using the unstructured option for the covariance structure.

Given the large number of policies examined and the potential for collinearity among the policy variables, all 11 policy variables were not entered into the model simultaneously. Instead, separate models were estimated with each policy individually. As a sensitivity analysis, models were also estimated that included all policies in a given policy category, such as all state Medicaid policies.

## Results of Policy Analyses

Between 2000 and 2009, the rate of child maltreatment investigations ranged from 7.77 to 97.2 per 100,000 children ( $M = 26.7$ ,  $SD = 10.3$ ). Overall, these rates tended to decrease over the time period.

Table 2 presents descriptive statistics for the selected policies, standardized  $\beta$  regression coefficients and marginal effects (for each policy alone and, in parentheses, adjusted for similar policies) derived from the multi-level regression models controlling for demographic confounders. Marginal effects are calculated as the change in the dependent variable associated with a one-unit change in the policy variable. Standard errors for marginal effects are presented in Table 3. The absence/presence of wait lists to access child care had a statistically significant association with child maltreatment investigation rates. More specifically, the presence of wait lists to access subsidized child care was associated with an increase in maltreatment investigations of 3.13 per 1,000 children.

States' continuity of eligibility for Medicaid/SCHIP was statistically significant and associated with lower child maltreatment investigation rates. States with continuous eligibility for Medicaid/SCHIP have child maltreatment investigation rates that are 2.55 per 1,000 lower than states without continuous eligibility.

## Discussion

In this article, 37 different policies are identified that might have impacts on the social determinants of child maltreatment. For 31 of these policies, there is at least one data point documenting their existence at the state-level. Multiple years of data are readily available for some unevaluated policies such as the Earned Income Tax Credit, work requirements for single parents with young children, and those aimed at increasing availability of affordable housing. This list is not exhaustive but suggests several opportunities for child maltreatment prevention researchers and others interested in policy evaluation. It may also be of interest to those concerned with child well-being in general.

We also examined the statistical relationship between child maltreatment investigation rates and four policies targeting poverty reduction, two policies facilitating access to child care, two policies facilitating access to early childhood education (pre-K), and three policies

facilitating children's access to health care. We found a statistically significant negative effect of waitlists to access subsidized child care and a statistically significant positive effect for policies that facilitate continuity of child health care insurance which are consistent with the expectation that greater access to child care and continuous access to health care could potentially decrease child maltreatment rates.

Our models control for a wide array of demographic confounders, the presence of similar policies, and the policy variables are measured as deviations from the state mean to control for time-invariant state-level unobservables and common trends in reports of child maltreatment. We report only within state trends to avoid issues with the variation in state definitions of what constitutes child maltreatment and who is mandated to report. However, there may be other confounders we have not controlled for that may be time-variant within states and potentially correlated with these state policies. On the other hand, given that policies might be more effective if implemented as part of a larger package, controlling for similar policies occurring simultaneously may be considered excessive.

Our statistical analyses have other limitations that warrant cautious interpretation for both the significant findings as well as the nonsignificant findings. Although the data reported by the Administration for Children and Families are extremely useful, there are many issues related to using child maltreatment reports to CPS (Fallon et al., 2010). Administrative protocols, regulations, and definitions vary across states. In addition, we chose to focus only on allegations of child abuse or neglect that met the State's standard for investigation (i.e., screened in). However, because we only report within state trends, these issues would be of concern if they vary within states over time.

Our use of official reports is also a potential limitation. Reports to CPS underestimate the occurrence of child maltreatment (Theodore et al., 2005), and future research should examine policies' impacts on self-reported child maltreatment.

These statistical analyses are also limited by the indicators or data used to measure the implementation of a policy. We have no information on how well the policies were implemented, what proportion of the population targeted was covered or actually complied, or whether the policies affected those at highest risk. We also lack information on the implementation of competing policies or contextual factors that may have influenced implementation or child maltreatment investigation rates. In addition, we have no information on whether these policies effectively achieved their purpose, and if they did, whether there was a time lag between the implementation of the policy and this achievement. Future research should try to collect this type of information in order to be able to know whether the absence of effects is because of poor implementation, reduced coverage, inequitable coverage, a time lag, competing policies or contextual factors, or ineffective policies.

Another limitation to consider is that the associations identified occur at the state level and not at the family or child level. Thus, although we report a significant association between increased state rates of child maltreatment investigations and the presence of child care waiting lists, we cannot conclude that a child being on a child care waiting list is associated



with that child's increased risk for being investigated for child maltreatment. However, state-level time trend analyses can suggest a potential relationship between policy changes and maltreatment reports that deserves further exploration. Future research using different research designs is needed to understand the pathways by which policy changes may be linked to child maltreatment.

Finally, it is important to acknowledge that our study design does not permit us to draw conclusions about causality from the analyses. Although the longitudinal design and our ability to adjust for confounders in our analyses add strength to our conclusions, these strategies do not overcome key potential biases inherent to quasi-experimental studies. For this reason, our findings should be viewed as correlational.

Although the randomized controlled trial is the most robust form of evidence of effectiveness and is increasingly used to evaluate policies (Ludwig, Kling, & Mullainathan, 2011), in many instances, the costs, time constraints, complexity of the policy, or ethical concerns makes randomized designs impractical to evaluate public policies. In these cases, natural experiments offer good opportunities for examining policies' impacts. Future research might focus on a reduced number of states that have good quality administrative data or population-based survey data on child maltreatment or reasonable proxies for child maltreatment and where data on the actual implementation of specific policies of interest could be documented. Combining qualitative methods with quantitative might contribute to a better understanding of how a policy is implemented and in what context. Such data could go a long way towards addressing the issues raised above and would contribute to a better evidence base to inform policies that might affect child maltreatment.

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**Table 1**

Policies identified, description, data source, and years data available.

Policies	Description	Data source	Years of data available
<b>Reduce poverty</b>			
1. Minimum wage	Percent above federal minimum income	US Department of Labor	1968–annual
2. Income taxes on low-income households	Percentage of income owed in state income taxes for a family at the federal poverty level	National Bureau of Economic Research (2012) Department of Health and Human Services (poverty threshold)	1977–annual
Threshold for state taxes	Income threshold (% above federal poverty line) at which family income becomes subject to the state income tax	Center on Budget and Policy Priorities	1996–annual
Earned Income Tax Credit	Tax refund for low to moderate income working individuals and families	Tax credits for working families	Year enacted by state
Child Tax Credit	Tax credit per child under 17 years of age	Tax credits for working families	Current
3. Eligibility for TANF	Maximum earnings an applicant can receive and still be eligible for benefit	Urban Institute	2000–annual
4. TANF benefits	Maximum monthly benefit for a family of three with no income in the month of July	Urban Institute	2000–annual
Work requirement exemptions	Exemptions for single parents with young children	Urban Institute	2000–annual
Child support rules	Child support collected passed on or not to families receiving TANF assistance/disregard the passed through support income in determining eligibility for and the amount of assistance	Vinson and Turetsky (2009)	2008
Reduce predatory lending	Prohibit or cap fees and interest rates for credit cards, payday lenders, pawnshops, title lenders, subprime mortgage lenders, rent-to-own stores	AARP (n.d.) National Conference of State Legislatures (2008, 2011, 2012)	2000 2007–2012
	Increase access to and use of traditional banking services for unbanked populations	No data source found	No data
<b>Deconcentrate poverty</b>	Use of the Low Income Housing Tax Credit (LIHTC) to locate affordable housing in low poverty neighborhoods	US Department of Housing and Urban Development	1996–2009
<b>Increase stability of residence</b>			
Affordable housing	Existence and size of trust fund to build or preserve affordable homes	National Council of State Housing Agencies	1993–annual
	Targeting federal tax credits to increase the supply of affordable homes for families with restricted access to private housing markets	National Council of State Housing Agencies	1993–annual
	Statutes prohibiting discrimination against housing voucher holders	National Housing Law Project	2005, 2010

Policies	Description	Data source	Years of data available
	Subsidized through vouchers or provision of public housing	No source found with state by state data	No data
	Statutes preventing mortgage fraud	National Conference of State Legislatures	2000–2011
<b>Provide high quality, affordable child care</b>			
5. Access to subsidies	Income cutoff for a family of three for child care subsidy as a percentage of state median income	National Women's Law Center	2001–annual
6. Wait list	Presence/absence of a wait list for child care assistance	National Women's Law Center	2001–annual
Reimbursement rates	Meets/does not meet federal guideline of the 75th percentile of a recent market rate survey	National Women's Law Center	2001–annual
Co-pays	% of family income expected to pay for child care	USDHHS/ACF	1999–2000, 2002–2003, 2005–2006
Quality of care	Funding provided for tiered reimbursement, quality improvement grants, professional development systems building, care provider scholarships, and/or wage enhancement initiatives	National Women's Law Center	2001–annual
Access to friends, family, or neighbor care	Non-licensed Family Child Care and/or In-Home providers allowed to receive subsidy payments	USDHHS/ACF	2001, FY02–03; FY04–05; FY06–07; FY10–11
Quality of friends, family or neighbor care	Requirements for background checks, health and safety attestation and/or orientation/training required; training, materials and equipment, or career development opportunities offered	Porter and Kearns (2005)	2004
Family and medical leave	Paid maternity leave and leave to care for sick children	National Partnerships for Women and Families (2005)	2004, 2006
<b>Provide high quality, affordable Pre-K</b>			
Increase access	Fund directly or supplement funds to Head Start	USDHHS/ACF	2003, 2005
7. Coverage of pre-K	Percent of three and four year olds enrolled in state funded pre-K	National Institute for Early Education Research	2001–annual
8. Quality of pre-K	Expenditure in dollars per child adjusted for inflation	National Institute for Early Education Research	2001–annual
	Promote comprehensive early learning standards, degree and training requirements for teachers; maximum class size allowed; minimum staff–child ratio; health and support services provided; meals provided; site visits conducted; parental involvement	State plans available at USDHHS/ACF Policy enactment data not available	
<b>Facilitate children's access to health care</b>			
9. Eligibility	Maximum family income as a percent of the federal poverty line at which children 1–5 are eligible for Medicaid or the State Children's Health Insurance Program (S-CHIP)	Kaiser Commission on Medicaid and the Uninsured	2001–annual

Policies	Description	Data source	Years of data available
10. Continuity of eligibility	Presence/absence of continuous eligibility enables states to ensure continuity of care by providing Medicaid and SCHIP enrollees continuous coverage for, most commonly, 12 months rather than on a month-to-month basis for Medicaid for children/SCHIP	Kaiser Commission on Medicaid and the Uninsured	2000–annual
11. Presumptive eligibility	Presence/absence of presumptive eligibility to provide temporary coverage to children and pregnant women under Medicaid and SCHIP until a formal eligibility determination can be made	Kaiser Commission on Medicaid and the Uninsured	2000–annual
Medical home for every child	Accessible, family-centered, continuous, comprehensive, coordinated, compassionate, and culturally effective medical care	State-wide effort not identified	No data
Evidence-based services	Evidence-based care and services for children with disabilities as defined by the Individual with Disabilities Education Act	DOE, Office of Special Education (only coverage)	1996–annual
<b>Facilitate parent's access to health care</b>			
Eligibility for Medicaid	Maximum earnings an applicant can receive and still be eligible for benefit	Kaiser Commission on Medicaid and the Uninsured	2001–annual
Access to contraception	Required coverage from private health insurance providers or coverage through Medicaid waivers, or increased funding of community-based health clinics	Guttmacher Institute	2001–2002, 2006, 2008
Access to mental health & substance abuse treatment	Provision of outpatient, residential, crisis and/or services for family	Robinson, Kaye, Bergman, Moreaux, and Baxter (2005)	2003

**Table 2**

Range and mean scores (SD), adjusted standardized regression coefficients and marginal effects of each policy alone (and adjusted for similar policies) on child maltreatment investigations.

Policies (unit of measurement)	<i>n</i>	Range	<i>M</i> ( <i>SD</i> )	Standardized $\beta$ policy alone/ adjusted for similar policies <sup>a</sup>	Marginal effects of policy alone/adjusted for similar policies <sup>a</sup>
<b>Reducing poverty</b>					
Minimum wage (% above federal minimum wage)	468	–17 to 54	8.42 (13.67)	.02/.01	0.625/0.536
State tax burden (\$) for family of 3 at federal poverty line	443	–0.10 to 0.03	–0.005 (0.02)	–.05/–.05	–18.111/–17.107
<b>TANF policies</b>					
Maximum monthly earnings and still be eligible (US2009\$)	459	0.0–1696.86	820.54 (340.31)	–.04/–.03	–0.014/–0.014
Maximum monthly benefits for family of 3 (US 2009\$)	459	169.40–1149.93	468.41 (176.91)	–.04/–.03	–0.002/–0.0001
<b>Access to child care</b>					
Income cutoff for child care subsidies for family of 3 (% of state median income)	408	33.82–95.30	57.76 (12.62)	–.01/–.01	0.009/–0.030
Wait list for child care (no/yes)	404	0–1	.38 (.49)	.07/.07**	3.127**/2.238*
<b>Access to quality pre-K</b>					
Enrollment in pre-K for 4-year olds (%)	354	0–71	12.71 (15.97)	.02/.01	–0.017/–0.022
Enrollment in pre-K for 3-year olds (%)	354	0–27	2.43 (4.51)	.02/.02	0.056/0.087
Expenditure per child in pre-K (US 2009\$)	353	0–11,797	3417.54 (2812.41)	.02/.01	0.0002/0.0002
<b>Access to health care</b>					
Eligibility for Medicaid/SCHIP for children 1–5 years old (% of federal poverty limit)	457	133–300	162.65 (44.10)	.01/.03	0.012/0.012
Continuity of eligibility for Medicaid/SCHIP (no/yes)	408	0–1	.32 (.47)	–.047*/–.03	–2.551*/–2.504*
Presumptive eligibility for Medicaid/SCHIP (no/yes)	408	0–1	.16 (.37)	–.03/–.03	–0.435/–0.271

Notes: Regression coefficients adjusted for state level percent of childhood poverty, high-school graduation among population > 18, unemployment, Black, and Latino population, and the child dependency ratio. Marginal effects represent the change in the child maltreatment investigation rate associated with a one unit change in the independent variable.

<sup>a</sup> Adjusted for policies in same category (e.g., eligibility, continuity, and presumptive eligibility for Medicaid/SCHIP included in one model).

\*  $p < .05$ .

\*\*  $p < .01$ .

**Table 3**

Adjusted standardized regression coefficients and marginal effects and standard errors of each policy alone (and adjusted for similar policies) on child maltreatment investigations.

Policies (unit of measurement)	Standardized $\beta$ policy alone/adjusted for similar policies <sup>a</sup>	Marginal effects of policy alone/adjusted for similar policies Standard errors in parentheses
<b>Reducing poverty</b>		
Minimum wage (% above federal minimum wage)	.02/.01	0.625(3.07)/0.536(3.08)
State tax burden (\$) for family of 3 at federal poverty line	-.05/-.05	-18.111(35.66)/-17.107(35.73)
<b>TANF policies</b>		
Maximum monthly earnings and still be eligible (US2009\$)	-.04/-.03	-0.014(0.01)/-0.014(0.01)
Maximum monthly benefits for family of 3 (US2009\$)	-.04/-.03	-0.002(0.004)/-0.0001(0.004)
<b>Access to child care</b>		
Income cutoff for child care subsidies for family of 3 (% of state median income)	-.01/-.01	0.009(0.05)/-0.030(0.04)
Wait list for child care (no/yes)	.07/.07**	3.127** (1.10)/2.238* (1.02)
<b>Access to quality pre-K</b>		
Enrollment in pre-K for 4-year olds (%)	.02/.01	-0.017(0.03)/-0.022(0.03)
Enrollment in pre-K for 3-year olds (%)	.02/.02	0.056(0.21)/0.087(0.21)
Expenditure per child in pre-K (US2009\$)	.02/.01	0.0002(0.0003)/0.0002(0.0003)
<b>Access to health care</b>		
Eligibility for Medicaid/SCHIP for children 1–5 years old (% of federal poverty limit)	.01/.03	0.012(0.01)/0.012(0.01)
Continuity of eligibility for Medicaid/SCHIP (no/yes)	-.04*/-.03	-2.551* (1.13)/-2.504* (1.14)
Presumptive eligibility for Medicaid/SCHIP (no/yes)	-.03/-.03	-0.435(1.05)/-0.271(1.05)

Notes: Regression coefficients adjusted for state level percent of childhood poverty, high-school graduation among population > 18, unemployment, Black, and Latino population, and the child dependency ratio. Marginal effects represent the change in the child maltreatment investigation rate associated with a one unit change in the independent variable.

<sup>a</sup> Adjusted for policies in same category (e.g., eligibility, continuity, and presumptive eligibility for Medicaid/SCHIP included in one model).

\*  $p < .05$ .

\*\*  $p < .01$ .